



COMPUTER SCIENCE

in

ARKANSAS



BLACK HISTORY

IN COMPUTER SCIENCE

BLACK HISTORY MONTH RESOURCES FOR COMPUTER SCIENCE

The CSforAR Team just finished up two new resources in honor of Black History Month!

For Grades 5-12 - Celebrate Black History Month in Computer Science with a choice board containing four individuals who played significant roles in the field of computer science. Linked to each individual is a biography, video, and book or podcast that can be used to help complete one or more of the activities listed on the right of each figure. Each activity links to an explanation of the activity as well as any resources needed. Each activity can be completed for one or more of the historical figures. The choice board can be found here: <https://bit.ly/BHnCS2022>. Also, don't miss the Digital Notebook linked in the Research activity!

For Grades K-4 - Celebrate Black History Month in Computer Science with the book, *The Girl With a Mind for Math: The story of Raye Montague*, and 14 different Literacy and STEM activities. The book can be found in your school library, and the activity can be found here: <https://bit.ly/RayeMontagueBookActivities>

Join us in celebrating the lives of these remarkable individuals, and share with us how you and your class are celebrating Black History Month! You can share your stories with us at CSforAR@ade.arkansas.gov.

RAYE MONTAGUE		  	Research Project  Research and develop a paper utilizing a guided digital notebook
ROY L. CLAY		  	Code Poetry  Code poetry is literature that intermixes classical poetry and computer code. Students use code to make poetry come to life.
KATHERINE JOHNSON		  	Interactive Poster with Makey Makey  Make biography posters come to life by coding the makey makey and including circuits to posters.
JERRY LAWSON		  	Multimedia Project  Student choice for creating a biography using either infographic, presentation, or video featuring one of our pioneers of computer science.

CS TEACHING EXCELLENCE AWARDS



In partnership with Infosys Foundation USA, the Computer Science Teachers Association (CSTA) Teaching Excellence Awards application is now open! Watch the shared CSTA video below to get inspiration from last year's winners: <https://youtu.be/Rw5J6LsFFlk>. You can apply at <https://csteachers.org/305564/Page/Show?ClassCode=Page&Slug=cs-teaching-excellence-awards>.

According to [CSTA](#), the CS Teaching Excellence Awards are designed to recognize outstanding teaching by K–12 computer science teachers. Winners excel in inspiring students to explore the computer science field, engaging students in learning rigorous standards-aligned computer science content, and broadening the participation of underrepresented students in computing. CSTA will select at least three K-5 CS teachers and three 6-8 teachers of the ten national winners. These awards were made possible by a grant from Infosys Foundation USA.

For more information visit their site at csteachers.org/excellence.

CSTA ANNUAL CONFERENCE

There's still time to register for the 2022 Computer Science Teachers Association (CSTA) Annual Conference in Chicago, IL, July 14-17th. The conference is a great way for CS educators to expand their knowledge of computer science and network with other educators from around the world through the unique experience of the CSTA Conference. Don't miss out on this great opportunity!

For more information on the 2022 CSTA Conference please visit <https://conference.csteachers.org/>.



Learning Blade has launched a new course called "Introduction to Coding" designed for Middle School teachers to provide an easy way to introduce students to coding. Perfect for teachers at ALL levels!

This course contains 20 hours of online and offline student learning including teacher lesson plans. This is **FREE** to those with a Learning Blade license. Sign up for your account at

www.LearningBlade.com/AR.

What is "Introduction to Coding"?

- Tailored to engage students at any experience level.
- Geared towards 7th-8th grade students, but can be used with others.
- Robust teacher resources
- Over 20 hours of online & offline lessons
- Online lessons will include topics such as:
 - The role of computers in society
 - Concepts of basic algorithms
 - Text-based code elements including statements
 - Variables and comments
 - Common hacking methods and means for combatting them
 - And many more!



Check out a 40-minute [webinar recording](#) where Learning Blade CTO - Dane Boyington reviews the new coding course.

"Having the Learning Blade tool in schools, students are exposed to the world of CS courses, CS opportunities, and CS career paths, and that is getting more students interested in CS jobs such as coding. The new "Intro to Coding" Block will continue to enhance what teachers can provide to their students."

-Governor Asa Hutchinson, Arkansas

Feel free to contact us at info@learningblade.com with any questions or to request training for your staff.

Learning Blade Corner - a monthly snapshot of happenings with Learning Blade in AR.

CTE DAY AT THE CAPITOL

Arkansas Career and Technical Education (CTE) month is being celebrated on Monday February 14, 2022, from 10am-12pm at the Arkansas State Capitol, and you are invited to attend!

The CSforAR Team will be there to talk to students about our nine CS pathways, and would love to talk to you! We will also be passing out CSforAR swag so be sure to stop by and say hello on Monday the 14th.

For any questions, reach out to CSforAR@ade.arkansas.gov.



ARKANSAS DATA SCIENCE AND COMPUTING SUMMIT

The following is an excerpt from the Arkansas Data Science and Computing Summit Report by Dr. Tina Moore.

The Arkansas Data Science and Computing Summit was held on December 15, 2021, at the Innovation Hub in North Little Rock, Arkansas. The Arkansas Department of Education (ADE) sanctioned event convened over sixty key stakeholders from K-12 and higher education, state agencies, business and industry, and non-profit organizations. Governor Asa Hutchinson and Secretary of Education Johnny Key provided opening remarks validating the critical need to bridge pathways from K-12 to postsecondary education and workforce readiness in data science and computing. Senator Jane English, Chair of the Arkansas Legislative Council-Higher Education Subcommittee and sponsor of Senate Bill 107, which requires high school students to take at least one computer science course in order to graduate, attended the event.

The goals of the Summit were to:

- Forge collaborative relationships among groups
- Elucidate current efforts (e.g. apprenticeships, internships, training, certificate and degree programs, curriculum development)
- Identify common endeavors to fortify concerted rather than duplicative efforts
- Discuss perceived barriers to successful outcomes and generate solutions to mitigate these challenges
- Leverage existing initiatives to connect K-12 and postsecondary programs



To launch the collaboration, attendees shared their individual goals for Summit participation. Seventeen programs were then highlighted through brief participant presentations. Small groups representing diverse sectors discussed connections among their work, perceived barriers to collaboration and achieving goals, and potential solutions to mitigate the challenges. Group insights and feedback were collected on shared files, and each group verbally reported on their discussions. Dr. Tina Moore, the ADE Director of STEM/Computer Science Continuum, provided a brief presentation on Diversity in STEM and shared actionable resources on addressing diversity, equity, and inclusion in data science and computing. Designated times throughout the day allowed networking among participants. The day ended with attendees developing and committing to their individual next steps to move the work forward.

According to Dr. Moore, "a main takeaway was the formation of the Arkansas Data Science and Computing Summit Ecosystem (ArDSCE)- a statewide community of practice from education, government, business, industry, and nonprofits committed to data science and computing economic growth and workforce development through data-informed education and training pathways for Arkansans." You can join by completing the [ArDSCE Membership Request Form](#).

Dr. Moore stated, "It was an engaging day of collaboration that certainly inspired me to move forward in this important work of bridging pathways from K-12 to postsecondary education and workforce readiness in data science and computing."

The full summary can be viewed [here](#). The summit was also covered by [KARK](#) and [Fox16](#).

STUDENT'S CODING SOLUTION SOLVES SPORTS SCHEDULING ISSUE



Pictured above: Emmanuel Westra; Mitch Huskey

During Governor Hutchinson's weekly address, he talked about the 16-year-old student at Mountain Home High School who amazed teachers, coaches, and athletic directors throughout the 6A West football conference when he wrote a computer program that solved a scheduling dilemma that had stumped all of them.

Taken from [Mountain Home Public Schools News](#): Mitch Huskey, athletic director at Mountain Home Public Schools, ran into a problem in December that he couldn't seem to solve. "Our varsity football team is moving into a new conference next year: 6A West," he said. "Each year, all the athletic directors from the conference get together to try to propose a football schedule for the upcoming season that has every team playing one another and allows each team to alternate home and away games." Huskey said creating this schedule is always a challenge, but it was made particularly difficult this year, because there are nine teams – an odd number – in this conference.

After asking a couple colleagues who also couldn't make headway, he had an idea. A bright student of his, Emmanuel Westra, was always looking for extra work during his AP Calculus AB class, so maybe he would want to take on this challenge. "I just went over and posed the problem to Emmanuel, just seeing if it was something he could come up with or what he could do." Rucker said.

Westra went home after school that day and got to work. He said he noticed that to alternate home and away, whatever solution there was would involve working through rounds. From there, he said he broke it down and began working with a smaller number of teams and working his way up. "Eventually I saw how to solve it, and that was just after supper," he said.

A problem that college-educated, math-savvy adults took hours working on and still came up empty handed had been solved by a 16-year-old high school student in just a few hours over a bowl of soup.

Westra said he plans to sit for both the AP Calculus AB exam and the AP Calculus BC exam. He has been prepping independently for the latter exam. He is working with some trusted adults on copyrighting the program he developed as well as working to encrypt the program to protect it. "I am kind of thinking we could make a whole set of software for other people to use when scheduling," he said.

You can read the full article here: <https://www.mhbombers.com/article/639162> or listen to the Governor's Weekly Address at <https://www.governor.arkansas.gov/news-media/weekly-address/>.

We love hearing stories like these, and if you have one that you would like to share please contact the CSforAR Team at CSfoAR@ade.arkansas.gov.

NGA 2022 WINTER MEETING

The National Governors Association's 114th annual Winter Meeting was January 28-31, 2022 in Washington, D.C. Governors met to discuss best practices and bipartisan collaboration on leading policy issues including infrastructure, computer science education and cybersecurity, as well as the importance of bipartisan leadership. Governors were joined by Cabinet secretaries and leaders from business, academia and philanthropy for solutions-driven conversations around the top issues in states and territories, including those raised or underscored during the public-health challenge that began in early 2020. - Taken from [NGA.org](https://www.nga.org)

State Director of Computer Science, Anthony Owen, attended the NGA Winter Meeting alongside Governor Hutchinson who chairs the NGA. Mr. Owen had the following to say regarding his time at NGA: "I am always humbled and honored when I am able to see the impact that Arkansas's initiative is having on the national conversation around computer science education. Over the past 7 years when I talk to and often advise other states regarding their CS initiatives, I am reminded of how blessed we have been to have Governor Hutchinson make this a priority for Arkansas students. By Governor Hutchinson making K-12 CS Education the NGA Chair's Initiative, not only will this propel the work across the nation, but it again demonstrates why Arkansas is the leading state in this space."

As Chairman, Governor Hutchinson has made K-12 Computer Science Education his initiative to promote his state's best practices, in addition to engaging other Governors on their strategies for success, and to help increase computer science literacy around the country needed for the jobs of the future. - <https://www.nga.org/computerscience/>

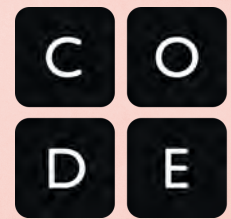
You can watch the Plenary Session I – Chairman's Initiative: K-12 Computer Science Education here: https://www.youtube.com/watch?v=y_TJrJCN6Bw. All other sessions can be viewed at <https://www.nga.org/annual-winter-meetings/nga-2022-winter-meeting/>.



CODE.ORG SPEAKER SERIES

Our very own State Director of Computer Science Anthony Owen was invited to participate in a Code.org speaker series with Code.org CEO Hadi Partovi and the Code.org team.

Mr. Partovi stated during the series, that he was going to be asking several people from all walks of life to talk with the Code.org team, but that Mr. Owen was the perfect speaker after CS Ed Week kick off and the NGA Winter Meeting.



Mr. Owen shared the following on social media the evening of the event, "I have experienced what I feel is one of the greatest honors of my professional career. Last fall, Hadi Partovi, who is the CEO and founder of Code.org, invited me to be his first guest in a speaker series during which he would have a discussion with different leaders in computer science and have the Code.org team watch, participate, and ask questions. Hadi Partovi, a highly successful tech leader who came to the US from Iran with nothing other than a desire and drive to succeed during a time of great duress, is a great example of the opportunities of the U.S. and what CS provides! I am so thankful to Hadi and the Code.org team for allowing me the honor to share my thoughts."

As always, Mr. Owen represented the state and the initiative very well, and the CSforAR Team wanted to recognize his national work highlighting the Arkansas CS initiative. Mr. Owen also shared a fun fact about himself that most of our team did not know: when he was a senior in high school he worked as a night manager at the Piggly Wiggly in Star City, AR.

AP COMPUTER SCIENCE FEMALE DIVERSITY AWARD

According to [College Board](#), the College Board AP® Computer Science Female Diversity Award recognizes schools that are closing the gender gap and expanding young women's access to computer science coursework in AP Computer Science Principles (AP CSP) and AP Computer Science A (AP CSA).

College Board is honoring schools that have either reached 50% or higher female examinee representation in one of or both AP computer science courses, or whose percentage of the female examinees met or exceeded that of the school's female population. A total of 1,020 schools are being recognized for their work toward equal gender representation during the 2020–2021 school year. - Taken from [College Board](#)

The CSforAR Team is pleased to recognize Arkansas schools that have achieved this goal and received the AP Computer Science Female Diversity Award.

The schools are as follows:

- Bryant High School - AP CSP
- Carlisle High School - AP CSP
- Charleston High School - AP CSP
- Dardanelle High School - AP CSP
- Fayetteville High School - AP CSP
- Greenwood High School - AP CSP
- Lakeside High School - AP CSP
- Lisa Academy West High School - AP CSP
- Marion Senior High School - AP CSP
- McGehee High School - AP CSP and AP CSA
- Smackover High School - AP CSP
- Stuttgart High School - AP CSP
- Sylvan Hills High School - AP CSP



A special shoutout goes to McGehee High School for being the only Arkansas high school to receive both the AP CSP & AP CSA award. The full list of recipients can be found here:

<https://apcentral.collegeboard.org/pdf/ap-cs-female-diversity-award-2021.pdf>.



CS REMINDERS

The Great Arkansas History Video Game Coding Competition

The contest submission window will open for the Great Arkansas History Video Game Coding Competition (GAHVGCC) on **February 21, 2022**, and will close on **March 4, 2022**, at noon.

This competition is open to Arkansas students in the 4th through 8th grade. **Please note that regardless of how far you make it in your design, please go ahead and submit your project.** We still want to see what you design!

For any questions, reach out to CS Specialist John Hart at john.hart@ade.arkansas.gov.



DON'T FORGET

Computer Science Educator of the Year Award

Eligible educators may apply at <https://www.surveymonkey.com/r/ARCSEOY2022> through the end of February 2022, so be sure to apply now!

The award is open to anyone holding an Arkansas Educator's License, in good standing, and currently working in an Arkansas K-12 public or public charter school.

For more information visit: <https://adecm.ade.arkansas.gov/ViewApprovedMemo.aspx?Id=5000>

Computer Science Educator Bonus Program

Applications are now being accepted until March 15, 2022.

This is the **only** time the application window will be open. Apply today!

All bonus application systems may be accessed at: <https://csforar.info/Bonuses>

For more information visit [Commissioner's Memo COM-22-001](#).



UPCOMING TRAINING

bit.ly/CSforARPD



CONTACT US

Four Capitol Mall
Little Rock, AR 72201

CSforAR@ade.arkansas.gov

February 2022



FOLLOW US ON SOCIAL MEDIA

[Facebook](#)
[Twitter](#)
[Instagram](#)
[Medium](#)
[LinkedIn](#)
[YouTube](#)



#ARKidsCanCode #CSforAR

Issue 8